

UNION ELECTRIC COMPANY

DOING BUSINESS AS AMEREN-UE

ILLINOIS COMMERCE COMMISSION DOCKET NO. _____

DIRECT TESTIMONY

OF

NEIL G. SLATEN

ST. LOUIS, MISSOURI
AUGUST 30, 2002

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DIRECT TESTIMONY OF NEAL G. SLATEN

Q. Please state your name and business address.

A. My name is Neal G. Slaten. My business address is 1901 Chouteau Avenue,
St. Louis, Missouri 63103.

Q. By whom and in what capacity are you employed?

A. I am employed by AmerenUE as a Supervising Engineer in the Strategic Programs
Department.

Q. Please describe your education.

A. I earned a Bachelor of Science degree in Aerospace Engineering from St. Louis
University in 1970 and a Master of Science degree in Nuclear Engineering from the
University of Missouri in 1972. I am a registered Professional Engineer in the States
of Missouri and Illinois.

Q. Please describe your qualifications.

A. I have been employed by AmerenUE since 1972 in a wide range of engineering
disciplines related to the AmerenUE Callaway Plant including radioactive waste
disposal, health physics, environmental impact analysis, nuclear safety analysis and
probabilistic risk assessment. Currently, my principal duties include directing the
Strategic Programs Group, which provides corporate expertise to the Callaway Plant
in probabilistic risk assessment, chemistry, health physics, radwaste and

environmental matters. In addition I am responsible for developing and implementing a long-range legal, technical and political strategy for high-level and low-level radioactive waste disposal and interfacing with various industry and regulatory bodies. I have served on various industry committees in the area of radioactive waste disposal over the years and currently serve on the Nuclear Energy Institute Low-Level Waste Working Group and the Electric Power Research Institute Nuclear Power Council as Chairman of the Technical Support Council Program Committee that is responsible for research in the areas of High-Level and Low-Level Radioactive Waste, Chemistry & Radiation Protection.

Q. What is the purpose of your testimony?

A. My testimony will address the decommissioning cost estimate used as the basis for the annual expense and quarterly contribution to AmerenUE's Tax Qualified Nuclear Decommissioning Trust Fund.

Q. Are you sponsoring any schedules?

A. Yes, I am sponsoring Schedules 1 and 2.

Q. Please discuss the decommissioning cost estimate process.

A. Every year AmerenUE performs a generic decommissioning cost calculation for its Callaway Plant. NRC regulations (10 CFR 50.75) require nuclear power plant licensees to use a simple three-part formula to update decommissioning cost estimates for their nuclear power plants. NRC has established a "generic" methodology for determining minimum amounts upon which financial assurance for decommissioning must be based. Licensees are allowed to perform site specific decommissioning cost studies and may use them to provide funding for higher financial assurance amounts;

48 but, as a minimum, financial assurance funding is required to be based on the amount
49 derived from the 10 CFR 50.75 “generic” methodology.

50 **Q. Is this generic cost estimate the sole basis for the contributions to the**
51 **decommissioning trust fund?**

52 **A.** No, not necessarily. In addition to the generic cost estimate, AmerenUE performs a
53 site-specific decommissioning cost estimate for the Callaway Plant at regular
54 intervals. This site-specific cost estimate is a more detailed analysis than the NRC
55 required generic calculation. AmerenUE uses the higher of the generic and site-
56 specific estimates as a basis for Ameren’s funding plan.

57 **Q. What is the generic NRC minimum cost estimate for Callaway Plant in 2002 and**
58 **how was it derived?**

59 **A.** The NRC minimum for the Callaway Plant ranges from \$321,540,000 to
60 \$554,318,000 in January 2002 dollars depending on assumptions used for radioactive
61 waste disposal practices. Attached is Schedule 1 consisting of a one page document
62 titled “Callaway Plant Generic Decommissioning Cost Estimate – NRC Minimum
63 Certification Requirements (10 CFR 50.75) – January 2002” which details the
64 methodology used to determine the generic cost estimate.

65 **Q. How does the generic cost estimate compare with the site-specific cost estimate?**

66 **A.** The latest site specific decommissioning cost estimate is \$515,339,000 in 2002
67 dollars. A contractor (TLG Services) under AmerenUE direction prepared this
68 estimate. The attached Schedule 2 contains the site-specific estimate including
69 discussion of the method utilized to derive the estimate. The current site specific

70 estimate is higher than the most recent generic estimate range minimum, and is the
71 governing value for decommissioning fund planning.

72 **Q. Please summarize the changes to the decommissioning cost estimates for the**
73 **Callaway Plant.**

74 **A.** The last NRC generic estimate provided in testimony to the Illinois Commerce
75 Commission in 1999 dollars was \$488,066,712. Because that value was higher than
76 the site specific cost estimate at the time, the NRC generic cost estimate was the
77 governing value for decommissioning fund planning. Both the NRC generic cost
78 estimate and the site specific cost estimate were derived assuming all
79 decommissioning radioactive waste was disposed at the Barnwell waste disposal site
80 in South Carolina. It should be noted that the Illinois Commerce Commission staff
81 reduced the estimate to \$437,763,000 in 1999 dollars to adjust for a lower waste
82 disposal cost. AmerenUE did not challenge the staff adjusted estimate.
83 NRC (NUREG-1307) allows the use of two different waste burial escalation factors,
84 one for direct burial at available LLW disposal sites and one for the use of waste
85 vendors for the disposition of LLW. However, with the volatility in waste disposal,
86 the longer away the decommissioning effort is the more uncertain the waste disposal
87 costs are and the more expensive they are likely to be. In our previous filing, we
88 believed use of the largest escalation factor allowed by NRC was the most prudent
89 course to assure the availability of sufficient funds when Callaway Plant
90 decommissions. In the context of NUREG-1307, this meant assuming direct burial at
91 Barnwell.

92 However, AmerenUE currently uses the most cost-effective methods of LLW
93 processing and disposal using waste processing vendors. Since the Commission will
94 have the opportunity to reconsider this issue and the level of participation of waste
95 vendors in future decommissioning rider filings, we have elected to use a blended
96 adjustment factor in our current site specific estimate which reflects costs for the
97 Barnwell disposal site in South Carolina, the Envirocare disposal site in Utah and the
98 use of waste processing vendors as appropriate. This, we believe, is consistent with
99 the ICC staff position in our previous filing. Should this situation change, the cost
100 estimate can be updated in future filings.

101 Increases in labor rates and other increases reflecting our contractor experience with
102 actual decommissioning projects since our last submittal offset the resulting reduction
103 in waste disposal costs.

104 **Q. Does this conclude your testimony?**

105 Yes, it does.

SCHEDULE 1

Callaway Plant Generic Decommissioning Cost Estimate NRC Minimum Certification Requirements (10CFR50.75)

January 2002

Definitions:

Estimated Decommissioning Cost in 2002 dollars = **1986\$Cost * (A*Lx + B*Ex + C*Bx)**

1986\$Cost = estimated decommissioning costs in 1986 dollars = \$105,000,000

A = fraction of the 1986 \$ Cost attributable to labor, materials and services = 0.65

B = fraction of the 1986 \$ Cost attributable to energy and transportation = 0.13

C = fraction of the 1986 \$ Cost attributable to waste burial = 0.22

Lx = labor, materials, services cost adjustment, January 1986 to January 2002 = 1.788

Ex = energy and waste transportation cost adjustment, January 1986 to January 2002 = 0.991

	Using Direct <u>Burial</u>	Using Waste <u>Vendors</u>
Bx = radioactive waste burial/disposition and surcharge cost adjustment = January 1986 to January 2002 (Using latest NUREG 1307 data)	18.129	8.052

Year 2002 Calculation

	Using Direct <u>Burial</u>	Using Waste <u>Vendors</u>
Total 2002 cost adjustment =	5.279	3.062

2002 Cost **\$554,318,000** **\$321,540,000**

Note: Minor variations due to rounding